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# NiceZyme View of ENZYME: EC 1.1.1.267

## Official Name

**1-deoxy-D-xylulose-5-phosphate reductoisomerase.**

## Alternative Name(s)

**1-deoxyxylulose-5-phosphate reductoisomerase.**

**DXP-reductoisomerase.**

## Reaction catalysed

2-C-methyl-D-erythritol 4-phosphate + NADP(+) <=> 1-deoxy-D-xylulose 5-phosphate + NADPH

## Cofactor(s)

Manganese or Cobalt or Magnesium.

## Comment(s)

The enzyme from several eubacteria, including Escherichia coli, forms part of an alternative nonmevalonate pathway for terpenoid biosynthesis.

## Cross-references

BRENDA [1.1.1.267](#)

PUMA2 [1.1.1.267](#)

PRIAM enzyme-specific profiles [1.1.1.267](#)

Kyoto University  
LIGAND chemical database [1.1.1.267](#)

IUBMB Enzyme  
Nomenclature [1.1.1.267](#)

IntEnz [1.1.1.267](#)

MEDLINE [Find literature relating to 1.1.1.267](#)

<a href="#">Q81N10</a> , DXR1_BACAN;	<a href="#">Q81B49</a> , DXR1_BACCR;	<a href="#">Q638M6</a> , DXR1_BACCR;
<a href="#">Q6HG59</a> , DXR1_BACHK;	<a href="#">Q81WL4</a> , DXR2_BACAN;	<a href="#">Q819Y3</a> , DXR2_BACCR;
<a href="#">Q636K5</a> , DXR2_BACCR;	<a href="#">Q6HEZ4</a> , DXR2_BACHK;	<a href="#">Q6FCG9</a> , DXR_ACIAD;
<a href="#">Q8UC86</a> , DXR_AGRT5;	<a href="#">Q8YP49</a> , DXR_ANASP;	<a href="#">Q66722</a> , DXR_AQUAE;
<a href="#">Q9XFS9</a> , DXR_ARATH;	<a href="#">Q732P8</a> , DXR_BACC1;	<a href="#">Q64PY9</a> , DXR_BACFR;
<a href="#">Q9KA69</a> , DXR_BACHD;	<a href="#">Q5WFT4</a> , DXR_BACSK;	<a href="#">Q31753</a> , DXR_BACSU;
<a href="#">Q8A684</a> , DXR_BACTN;	<a href="#">Q8G7Y7</a> , DXR_BIFLO;	<a href="#">Q7WJ88</a> , DXR_BORBR;
<a href="#">Q7WA54</a> , DXR_BORPA;	<a href="#">Q7VYC4</a> , DXR_BORPE;	<a href="#">Q89KP9</a> , DXR_BRAJA;
<a href="#">P57329</a> , DXR_BUCAI;	<a href="#">Q8K9S7</a> , DXR_BUCAP;	<a href="#">Q62JD0</a> , DXR_BURMA;
<a href="#">Q63T18</a> , DXR_BURPS;	<a href="#">Q9PMV3</a> , DXR_CAMJE;	<a href="#">Q9A709</a> , DXR_CAUCR;
<a href="#">Q823G9</a> , DXR_CHLCV;	<a href="#">Q9PKW8</a> , DXR_CHLMU;	<a href="#">Q9Z8J8</a> , DXR_CHLPN;

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<a href="#">Q8KG43</a> , DXR_CHLTE;	<a href="#">Q84074</a> , DXR_CHLTR;	<a href="#">Q7NVY8</a> , DXR_CHRVO;
<a href="#">Q97I58</a> , DXR_CLOAB;	<a href="#">Q8XJR1</a> , DXR_CLOPE;	<a href="#">Q895K5</a> , DXR_CLOTE;
<a href="#">Q6NGL1</a> , DXR_CORDI;	<a href="#">Q8FP80</a> , DXR_COREF;	<a href="#">Q8NPF10</a> , DXR_CORGL;
<a href="#">Q9RU84</a> , DXR_DEIRA;	<a href="#">Q6AP35</a> , DXR_DESPS;	<a href="#">Q72DR3</a> , DXR_DESVH;
<a href="#">Q8X8Y1</a> , DXR_ECO57;	<a href="#">P45568</a> , DXR_ECOLI;	<a href="#">Q6D8D9</a> , DXR_ERWCT;
<a href="#">Q8R622</a> , DXR_FUSNN;	<a href="#">Q74BW4</a> , DXR_GEOSL;	<a href="#">Q7NID1</a> , DXR_GLOVI;
<a href="#">Q7VM27</a> , DXR_HAEDU;	<a href="#">P44055</a> , DXR_HAEIN;	<a href="#">Q9ZML6</a> , DXR_HELPJ;
<a href="#">P56139</a> , DXR_HELPY;	<a href="#">Q9AJD7</a> , DXR_KITGR;	<a href="#">Q6AEY1</a> , DXR_LEIXX;
<a href="#">Q72U08</a> , DXR_LEPIC;	<a href="#">Q8F146</a> , DXR_LEPIN;	<a href="#">Q92C37</a> , DXR_LISIN;
<a href="#">Q720A5</a> , DXR_LISMF;	<a href="#">Q8Y7G4</a> , DXR_LISMO;	<a href="#">Q65R75</a> , DXR_MANSM;
<a href="#">Q9XES0</a> , DXR_MENPI;	<a href="#">Q60BA4</a> , DXR_METCA;	<a href="#">P64013</a> , DXR_MYCBO;
<a href="#">Q9CBU3</a> , DXR_MYCLE;	<a href="#">Q73VS1</a> , DXR_MYCPA;	<a href="#">P64012</a> , DXR_MYCTU;
<a href="#">Q9JX33</a> , DXR_NEIMA;	<a href="#">Q9K1G8</a> , DXR_NEIMB;	<a href="#">Q82U01</a> , DXR_NITEU;
<a href="#">Q5YS72</a> , DXR_NOCFA;	<a href="#">Q6MEL5</a> , DXR_PARUW;	<a href="#">P57985</a> , DXR_PASMU;
<a href="#">Q7N8P3</a> , DXR_PHOLL;	<a href="#">Q6LN30</a> , DXR_PHOPR;	<a href="#">Q7MUW3</a> , DXR_PORGI;
<a href="#">Q6A7K8</a> , DXR_PROAC;	<a href="#">Q7VB62</a> , DXR_PROMA;	<a href="#">Q7V6J8</a> , DXR_PROMM;
<a href="#">Q7V0W0</a> , DXR_PROMP;	<a href="#">Q9KGU6</a> , DXR_PSEAE;	<a href="#">Q88MH4</a> , DXR_PSEPK;
<a href="#">Q886N7</a> , DXR_PSESM;	<a href="#">Q8XZI5</a> , DXR_RALSO;	<a href="#">Q92LP6</a> , DXR_RHIME;
<a href="#">Q7URM5</a> , DXR_RHOBA;	<a href="#">Q6N5Q6</a> , DXR_RHOPA;	<a href="#">Q8Z9A6</a> , DXR_SALTI;
<a href="#">Q8ZRP3</a> , DXR_SALTY;	<a href="#">Q8EGG9</a> , DXR_SHEON;	<a href="#">Q83MD3</a> , DXR_SHIFL;
<a href="#">Q82K41</a> , DXR_STRAW;	<a href="#">Q9KYS1</a> , DXR_STRCO;	<a href="#">Q67PA9</a> , DXR_SYMTH;
<a href="#">Q8DK30</a> , DXR_SYNEL;	<a href="#">Q9RCT1</a> , DXR_SYNLE;	<a href="#">Q7U8C3</a> , DXR_SYNPX;
<a href="#">Q55663</a> , DXR_SYNY3;	<a href="#">Q9WZZ1</a> , DXR_THEMA;	<a href="#">Q72KE2</a> , DXR_THET2;
<a href="#">Q8RA28</a> , DXR_THETN;	<a href="#">Q73K78</a> , DXR_TREDE;	<a href="#">Q83610</a> , DXR_TREPA;
<a href="#">Q83IC8</a> , DXR_TROW8;	<a href="#">Q83GY8</a> , DXR_TROWT;	<a href="#">Q9KPV8</a> , DXR_VIBCH;
<a href="#">Q87ME3</a> , DXR_VIBPA;	<a href="#">Q8DBF5</a> , DXR_VIBVU;	<a href="#">Q7MIG6</a> , DXR_VIBVY;
<a href="#">Q8D2G6</a> , DXR_WIGBR;	<a href="#">Q73GG3</a> , DXR_WOLPM;	<a href="#">Q8PML1</a> , DXR_XANAC;
<a href="#">Q8PAV9</a> , DXR_XANCP;	<a href="#">Q9PEI0</a> , DXR_XYLFA;	<a href="#">Q87EH9</a> , DXR_XYLFT;
<a href="#">Q8ZH62</a> , DXR_YERPE;	<a href="#">Q667J3</a> , DXR_YERPS;	<a href="#">Q9X5F2</a> , DXR_ZYMMO;

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